range of symptoms they experienced were very non-specific, and could easily have been attributed to a viral infection; indeed several had consulted primary health care services and been given this diagnosis. The key to diagnosis is to suspect it in anyone with exposure to potentially infected waters 4–8 weeks previously, and the presence of a peripheral blood eosinophilia. A negative serology result and normal microscopy of stool and urine does not rule out schistosomiasis.

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References
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Bilateral massive adrenal haemorrhage revealing coeliac disease

Sir,

We describe a case of coeliac disease that remained undiagnosed for many years and induced a hypo-coagulant state and bilateral adrenal haemorrhage. This is the first reported case of bilateral adrenal haemorrhage in a patient with this disorder.

A 43-year-old woman presented with sub-acute back pain requiring morphine. She did not smoke, drink alcohol, or take medications or illicit drugs. Physical examination revealed severe cachexia (BMI 15 kg/m²). She was afebrile, with a blood pressure of 110/75 mmHg. She reported a 10-year history of progressive unexplained weight loss with lack of energy. There was no decrease in appetite until 6 months prior, when she began to limit her intake due to persistent diarrhoea. Laboratory investigation revealed potassium 3 mmol/l, albuminaemia 14 g/l, prealbuminaemia 0.086 g/l (N 0.21–0.41), calcium 1.2 mmol/l, phosphate 0.5 mmol/l, cholesterol 2 mmol/l and vitamin D 8 nmol/l (N 26–113). Haemoglobin was 11 g/dl with normal white blood cell and platelet counts. C-reactive protein was <7 mg/l. Prothrombin level was 16% (N 70–100%) with a severe decrease in vitamin-K-dependant cofactors (factor II 0.09, factor X 0.04 IU, with normal factor V). Thyroid function was normal. HIV test was negative.

Parenteral nutrition was initiated, with correction of vitamin K and D deficiencies. Given her past medical history, a diagnosis of coeliac disease was considered, and later confirmed by strongly positive antibody titres against both gliadin (ELISA: immunoglobulin A 1300 UR/ml and immunoglobulin G 1250 UR/ml, N<25) and endomysium (indirect immunofluorescence 1:80) and by subtotal duodenal atrophy. A gluten-free diet was initiated. Anti-nuclear antibodies, lupus anticoagulant, anticardiolipin and anti-beta2glycoprotein 1 were all negative. Thrombophilia screen, including protein S and C levels, anti-thrombin level, activated protein C resistance and factors V and II, was normal. Radiological evaluation of the lumbar spine revealed severe osteopenia, which was subsequently confirmed by bone mineral density (lumbar T score –4). Bone scintigraphy revealed multiple fissures on ribs without signs of vertebral lumbar fractures. A thoracic-abdominal CT scan revealed isolated enlarged adrenals, and led to the diagnosis of bilateral adrenal haemorrhage (Figure 1). Cortisol level and a cosyntropin stimulation test did not show adrenal insufficiency, but hydrocortisone replacement was prescribed, due to the high risk of loss of adrenal function. Two months later, the patient had gained 10 kg and was able to discontinue morphine. Six months later, CT scans showed atrophy of the adrenal glands.

Coeliac disease is a common condition (prevalence about 1:300 using serological tests) but frequently undiagnosed in adulthood, particularly when gastrointestinal symptoms are absent. In this patient, severe malabsorption led to vitamin K deficiency, and the resulting anticoagulated state predisposed her to massive bilateral adrenal haemorrhage.
Bilateral adrenal haemorrhage is a rare catastrophic condition, and is fatal if glucocorticoid treatment is not initiated promptly.\textsuperscript{3} It typically presents with non-specific symptoms; in our case, the presenting symptom was sub-acute back pain. Spontaneous or iatrogenic coagulopathies are well known risk factors for the development of this condition.\textsuperscript{3} Because of the unique vascular plexuses and venous drainage of adrenal glands, they are vulnerable to venous stasis and thrombosis. This may lead to ischaemic necrosis with subsequent secondary haemorrhage in the glands. A case of bilateral adrenal haemorrhage secondary to thrombosis in a patient heterozygous for factor V Leiden has been described.\textsuperscript{4}

As regards the involvement of adrenal glands in coeliac disease, only autoimmune endocrine diseases such as Addison’s disease have been implicated—no cases of bilateral adrenal haemorrhage have been reported until now.

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References

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